

Global Steel Trade Monitor

July 2016

Global Steel Report



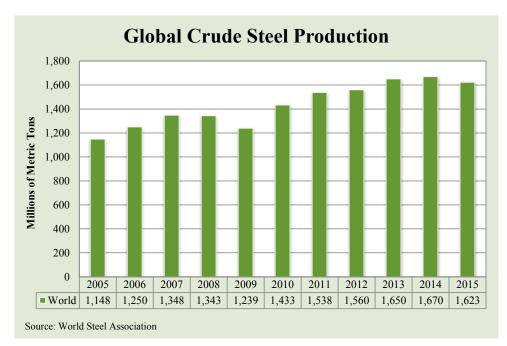
Introduction and Trends

At a challenging time for the steel industry, the United States Government is committed to providing information to the public in an accessible and transparent manner. The Global Steel Report offers a straightforward interpretation of currently available statistical data concerning the global steel trade and the regions and countries that play a large role in it. Information in this report includes global export and import trends, production, capacity, and consumption data. This information will provide current, objective, and relevant global steel trade and industry data and will allow for new insights into the global steel marketplace.

Steel is a critical industry worldwide, and steel products are a heavily traded commodity. In recent years, market changes, shifts in import and export levels, and weakness in the global demand for steel have negatively impacted steel industries across the world. Along with shifting trade patterns, world benchmark steel prices have been trending downward since early 2011, and the financial outlook for many steel companies has declined. The 2008-2009 global financial crisis was particularly difficult for steel industries, and this period will feature prominently in the following discussion of global steel indicators. 2015 was also a period of decline for the steel industry, as weak global demand caused declines in other indicators.

Production

For most of the last decade, global crude steel production has been growing. Production totaled 1.1 billion metric tons in 2005 and by 2015 had grown 41.4 percent to 1.6 billion metric tons — an increase of 475 million metric tons over ten years. Global production dipped in 2009 following the global financial crisis but rebounded quickly by 2010. In 2014, global production hit a record high of

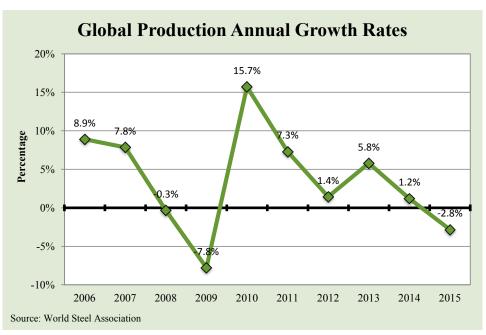


1.67 billion metric tons. Weak global demand for steel in 2015 caused a slight contraction in crude steel production worldwide, decreasing percent from 2014. The World Steel Association has forecasted relatively stagnant steel demand levels for 2016 and 2017, which would indicate that production may hold steady at current levels in the near future.

Crude steel production growth rates reinforce the upward

production trend of the past decade. Since 2006 there have been only three years with negative growth rates. In 2008 and 2009, as the global financial crisis impacted the steel industry, growth rates bottomed out at -0.3 percent and -7.8 percent, respectively. Crude steel production shrank in 2015, at -2.8 percent, due to weak demand for steel. In the majority of years in which steel demand

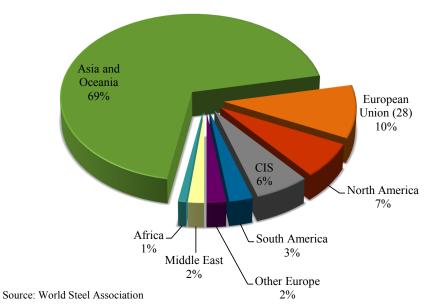
experienced positive growth, growth rates were above 5 percent. Growth peaked in 2010 when the rate hit 15.7 percent.



Production by Region

Among eight world regions, Asia and Oceania produced 1.12 billion metric tons of steel in 2015, accounting for 69 percent of the 1.6 billion metric tons of global production. The European Union (28) was the second-largest steel producing region in 2015 with a 10 percent share of production (166 million metric tons), followed by North America with a 7 percent share (111 million metric tons) and the Commonwealth of Independent States (CIS) with a 6 percent share (102 million metric tons).

Regional Share of 2015 Steel Production



The distribution of shares by region held steady from 2014 but has changed markedly from a decade ago. Between 2005 and 2015, the majority of regions have seen their shares of production decrease, including the European Union, CIS, North America, South America, and Africa. The share of production held by Other Europe remained at 2 percent. Only the Middle East and Asia and Oceania had increases in their shares of global production between 2005 and 2015. The table below highlights the different performances across regions.

Across all regions, steel production fell in 2015. North America saw the largest

negative growth rate, at -8.6 percent, followed by Other Europe at 5.7 percent. Prior to 2015, steel production in Asia and Oceania and the Middle East had positive growth in every year since 2006, sometimes growing by double digits. All other regions experienced declines in steel production, especially during the 2008-2009 financial crisis and again in 2012-2014.

Crude Steel Production Annual Growth Rates												
Region	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		
World	8.9%	7.8%	-0.3%	-7.8%	15.7%	7.3%	1.4%	5.8%	1.2%	-2.8%		
European Union (28)	6.0%	1.4%	-5.5%	-29.8%	24.0%	2.8%	-5.2%	-1.3%	1.8%	-1.8%		
Other Europe	13.0%	8.6%	3.6%	-8.2%	15.9%	16.1%	2.1%	-3.2%	-0.7%	-5.7%		
CIS	5.9%	3.6%	-7.9%	-14.6%	10.8%	4.1%	-1.7%	-2.1%	-2.1%	-4.3%		
North America	3.0%	0.9%	-5.6%	-33.1%	33.2%	6.4%	2.5%	-2.1%	1.8%	-8.6%		
South America	-0.5%	6.5%	-1.5%	-20.5%	16.2%	9.7%	-3.7%	-1.2%	-1.7%	-2.5%		
Africa	4.1%	-0.1%	-9.1%	-9.3%	7.9%	-5.6%	-2.3%	4.1%	-5.9%	-0.1%		
Middle East	0.8%	7.0%	1.2%	6.7%	12.6%	16.2%	7.5%	8.0%	11.2%	-0.6%		
Asia and Oceania	12.5%	12.2%	3.3%	3.2%	13.3%	8.2%	3.0%	9.4%	1.4%	-2.2%		

Source: World Steel Association

Note: See Glossary for a list of countries in each region

Production by Country

Four of the world's ten largest steel producing countries are in Asia and Oceania: China, Japan, India, and South Korea. China is the world's largest steel producing country and accounted for nearly half of global production in 2015 at 49.5 percent — a total of 803.8 million metric tons. Japan ranked second at 6.5 percent of global production or 105.2 million metric tons production, followed by India (5.5% or 89.4 million metric tons), the United States (4.9% or 78.8 million metric tons), and Russia (4.4% or 70.9 million metric tons).

Japan India U.S. Russia S. Korea Germany Brazil Turkey Ukraine

Top 10 Crude Steel Producing Countries in 2015

Source: World Steel Association

Production by Company

ArcelorMittal, formed through the merger of Luxembourg-based Arcelor and India-based Mittal in 2006, has been the world's largest steel-producing company for several years. In 2015, ArcelorMittal produced 97.1 million metric tons of steel, or 6 percent, of global production. China's Hesteel, formerly Hebei Iron and Steel, ranked second in 2015 with 47.7 million metric tons of steel production, followed by Japan's Nippon Steel and Sumitomo Metal Co., which merged in 2012, with 46.4 million metric tons. Five of the top 10 companies are headquartered in China, and nine of the top 10 are headquartered in Asia and Oceania. ArcelorMittal is the only company headquartered outside Asia and Oceania region.

Top 10 Steel Producing Companies in									
2015									
Rank	Company	Production (mmt)							
1	ArcelorMittal	97.1							
2	Hesteel Group	47.7							
3	Nippon Steel and Sumitomo Metal Corporation (NSSMC)	46.4							
4	POSCO	42							
5	Baosteel Group	34.9							
6	Shagang Group	34.2							
7	Ansteel Group	32.5							
8	JFE Steel Corporation	29.8							
9	Shougang Group	28.6							
10	Tata Steel Group	26.3							
Source: W	orld Steel Association								

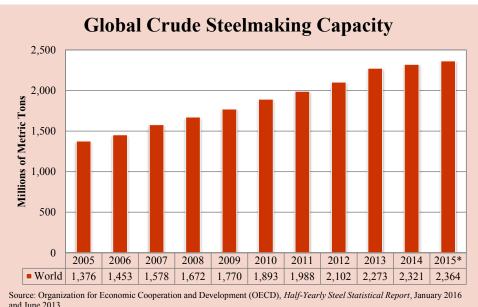
Capacity

Over the past decade, global steelmaking capacity has grown in size every year. Between 2005 and 2015, 987.8 million metric tons of capacity were added globally — an increase of 71.8 percent. Unlike production, which fell during the global financial crisis in 2008-2009, steelmaking capacity

continued to grow, though by nature, capacity is slower to respond to market conditions than production. After an 8.1 percent jump in 2013, global capacity growth began to slow. Since 2013, capacity has increased by 4 percent or 90.8 million metric tons.

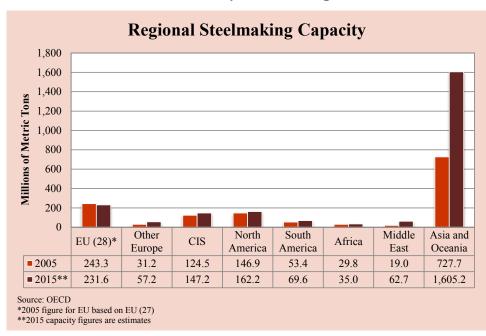
Capacity by Region

Between 2005 and 2015, each region except the European Union had increases in its total of steelmaking amount capacity. Asia and Oceania saw the largest increase, adding



*2015 capacity figure is an estimate

877.5 million metric tons of capacity over the period, for a total capacity of 1.6 billion metric tons in 2015. Notably, Asia and Oceania accounted for 89 percent of the 987.8 million metric tons of global steelmaking capacity added since 2005. The Middle East ranked second with an increase of 43.7 million metric tons, followed by Other Europe which added 26.1 million metric tons and CIS which



added 22.8 million metric tons. Capacity in the European Union decreased by 11.7 million metric tons between 2005 and 2015. In 2015, Asia and Oceania accounted for 67.9 percent of global steelmaking capacity, an increase of 15 percentage points from 52.9 percent in 2005. The European Union ranked distant second with 232 million metric tons of capacity, or 9.8 percent of global capacity.

chart The below indicates annual growth rates of both global steelmaking capacity and

regional steelmaking capacity. As noted previously, global capacity has grown every year since 2005. Growth rates at the global level have averaged 5.6 percent over the period, peaking at 8.6 percent in 2007 and 8.1 percent in 2013. After 2013's peak, global growth rates slowed to their lowest levels in recent years, at 2.1 percent in 2014 and 1.8 percent in 2015.

Regional capacity growth rates have showed mixed trends. Growth rates in the European Union and

Steelmaking Capacity Annual Growth Rates												
Region	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*		
World	5.6%	8.6%	5.9%	5.9%	6.9%	5.0%	5.7%	8.1%	2.1%	1.8%		
European Union (28)*	-0.1%	-2.6%	1.4%	0.4%	-0.7%	0.2%	0.4%	-2.9%	-0.9%	0.0%		
Other Europe	10.3%	13.7%	5.4%	10.2%	11.4%	8.7%	3.5%	0.4%	0.4%	0.0%		
CIS	2.2%	5.9%	7.3%	-2.1%	2.1%	1.4%	-1.5%	0.6%	1.1%	0.3%		
North America	4.6%	1.6%	1.1%	0.8%	0.3%	1.1%	1.6%	-1.8%	1.5%	-0.6%		
South America	1.6%	2.9%	6.4%	1.2%	5.4%	3.9%	0.2%	1.1%	0.0%	4.1%		
Africa	0.0%	-0.1%	-2.7%	5.5%	2.3%	3.8%	-5.2%	7.8%	2.0%	3.5%		
Middle East	0.0%	19.2%	21.8%	6.0%	13.7%	8.4%	19.7%	23.7%	8.8%	7.8%		
Asia and Oceania	8.8%	14.1%	7.7%	9.3%	10.1%	6.9%	8.4%	12.3%	2.7%	2.7%		
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Source: OECD

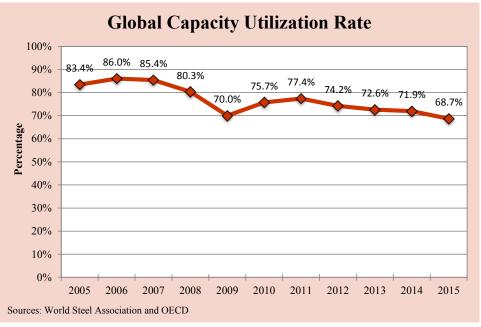
*2006 EU figure based on EU (27)

**2015 capacity figures are estimates

North America have maintained the lowest averages, at -0.5 percent and 1 percent, respectively. Both have seen negative growth in recent years. South America has alternated between moderate growth and minimal growth, while CIS and Africa have alternated between moderate and negative growth. Other Europe began the period with high growth rates, peaking at 13.7 percent in 2007 and ended the period with stagnant growth. The Middle East had the highest average growth rate at 12.9 percent, while Asia and Oceania was the only region to have consistently positive capacity growth rate, averaging 8.3 percent.

Capacity Utilization

Global capacity utilization rates have declined in the majority of years since 2005. Capacity utilization dropped percent in 2009 following the global financial crisis — a 16 percentage point decline from the most recent peak of 86 percent in 2006. The capacity utilization rate began to recover between 2009 and 2011, growing by 7.4 percentage points to 77.4 percent. 2011, however, the rates began a downward trend, falling to a 10-



year low in 2015 at 68.7 percent.

Capacity Utilization by Region

At the regional level, capacity utilization has maintained significantly different rates. All regions have experienced similar trends since 2005: declines in 2008 and 2009 in conjunction with the global financial crisis and lower average rates post-financial crisis than pre-financial crisis. Between 2005 and 2007, capacity utilization reached or exceeded 80 percent in all regions except Africa. CIS had capacity utilization above 90 percent through 2007.

By 2009, capacity utilization in all regions had decreased, with the European Union and North

Regional Capacity Utilization Rates												
Region	Trend	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015**
European Union (28)*	~~~~~	80.4%	85.3%	88.8%	82.8%	57.9%	72.3%	74.2%	70.1%	71.2%	73.1%	71.8%
Other Europe	7	79.9%	81.9%	78.1%	76.8%	64.0%	66.6%	71.2%	70.3%	67.7%	67.1%	63.3%
CIS	- James	91.0%	94.2%	92.2%	79.1%	69.0%	74.9%	76.9%	76.7%	74.7%	72.3%	69.0%
North America	The state of the s	86.9%	85.5%	84.9%	79.3%	52.7%	69.9%	73.6%	74.3%	74.0%	74.3%	68.3%
South America	My May	85.2%	83.4%	86.4%	79.9%	62.8%	69.2%	73.0%	70.2%	68.6%	67.4%	63.1%
Africa	or have	60.2%	62.7%	62.6%	58.5%	50.3%	53.1%	48.3%	49.8%	48.1%	44.4%	42.8%
Middle East	July .	80.2%	80.9%	72.6%	60.3%	60.7%	60.1%	64.4%	57.8%	50.5%	51.6%	47.5%
Asia and Oceania		83.5%	86.4%	84.9%	81.5%	76.9%	79.2%	80.1%	76.1%	74.2%	73.2%	69.7%
Sources: World Steel Association and OECD *2005-2006 EU figures based on EU (27) **2015 capacity figures are estimates												

America experiencing the largest percentage point declines from 2007, at -31 and -32.3 percentage points, respectively. Between 2010 and 2015, Asia and Oceania was the only region to experience capacity utilization above 80 percent, reaching 80.1 percent in 2011. Average capacity utilization rates were, at most, in the low– to mid–70s for the European Union, CIS, North America, and Asia and Oceania. Other Europe averaged 67.7 percent capacity utilization between 2010 and 2015, while South America averaged 68.6 percent. Average rates in Africa and the Middle East were even lower, at 47.7 percent and 55.3 percent, respectively.

Apparent Steel Use

Since 2005, global apparent steel use of finished products. also known as demand, has tracked relatively closely with production and maintained a similar trend line. After gaining through 2007, demand slowed in 2008 and declined by 6.3 percent in 2009. As markets recovered from the global financial crisis, steel demand grew by 34 percent between 2009 and 2014. However, demand for steel was weak in

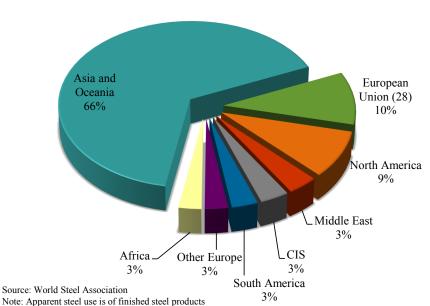


2015 decreasing by 2.8 percent — the same percentage decline as production that year. Despite the decline in 2015, demand for steel grew by 43.3 percent from 2005, an increase of 453.7 million metric tons.

Apparent Steel Use by Region

Asia and Oceania accounted for the largest share of global apparent steel use in 2015 at 66 percent; the region's demand for finished steel products totaled 984.8 million metric tons. The European Union accounted for 10 percent of world steel demand at 153.3 million metric tons, while North America accounted for 9 percent or 134.5 million metric tons. The Middle East, CIS, South America,

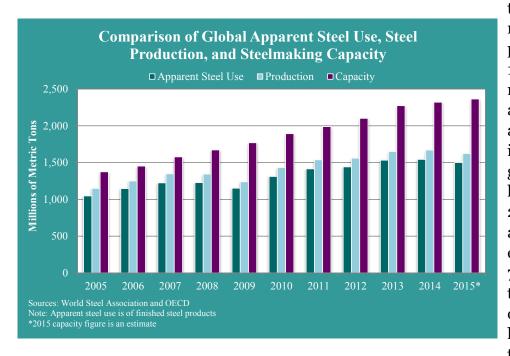
Regional Share of 2015 Apparent Steel Use



Europe, and Africa Other accounted for 3 percent of apparent steel use. Notably, apparent steel use shares for each region sometimes diverged from their corresponding shares of global crude production, indicating a regional gap between demand and production. North America, the Middle East, Other Europe, and Africa all had slightly larger shares of demand than shares of production. Asia and Oceania and CIS each had slightly smaller shares of demand than shares of production.

Apparent Steel Use, Production, and Capacity Comparison

The graph below charts global apparent steel use, crude steel production, and steel-making capacity. On a global level, apparent steel use and steel production have tracked closely with one another over



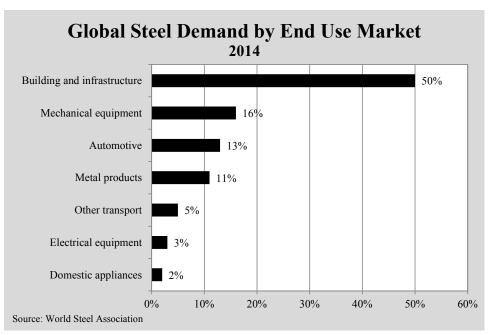
the past decade. Apart from a narrowing of the gap in 2009, production has held at roughly 100 to 125 million metric tons more than demand since 2005, and much of the surplus can be accounted for through stocking inventories. On the other hand. global steel-making capacity has increased greatly since 2005, outpacing both demand and crude steel production every year. Capacity was over 700 million metric tons larger than production in 2015 and over 800 million metric tons larger than demand, though these gaps were exacerbated by

production and demand declines in 2015.

End Use Markets

Along with being a widely-traded commodity, steel is also consumed in many end use markets. Based on available estimates, half of the steel produced globally is used in the building and

infrastructure sector, which includes housing, rail, bridge, and green energy construction. The mechanical equipment and automotive sectors together account for roughly 30 percent of steel demand, followed by metal products (consisting of consumer and other goods) and other transport (including shipbuilding and trains).



Trade — Exports

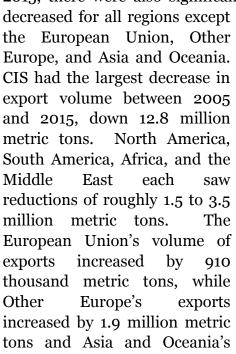
Exports of steel mill products have shown an upward trend in the past several years. Between 2005 and 2007, exports increased by 20.6 percent to 446 million metric tons before declining through the global financial crisis period in 2008-2009. By 2009, exports had dropped by 26.2 percent from 2007, a decrease of 116.6 million metric tons. Market recovery in 2010 caused a 21.3 percent jump in

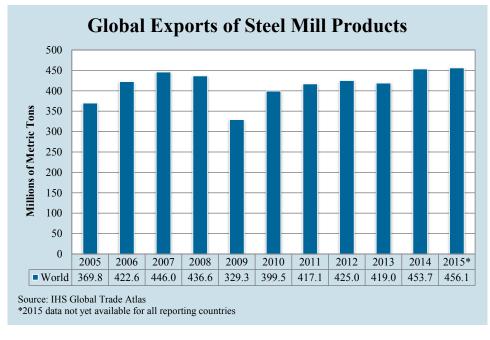
global steel exports, and with the exception of 2013, exports increased every year after that. Exports had recovered to peak levels by 2014 just cresting 450 million metric tons. Based on currently available data, 2015 exports increased by just 0.5 percent from 2014 to 456.1 million metric tons.

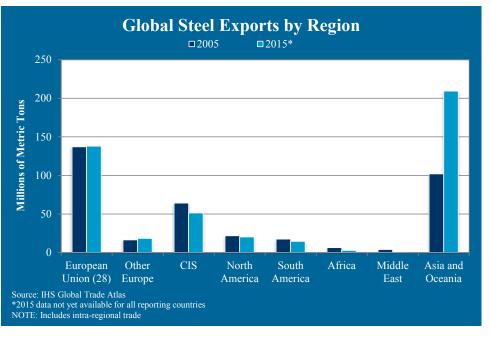
Trade — Exports by Region

Just as the total amount of global steel mill exports changed between 2005 and

2015, there were also significant changes in export totals at the regional level. Export volumes





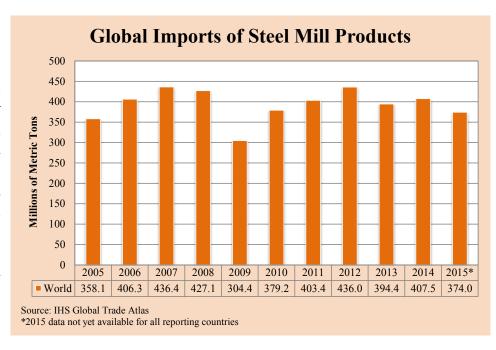


exports increased by 107.4 million metric tons.

Trade — Imports

The volume of steel mill products imported globally has fluctuated considerably since 2005. Imports grew 21.9 percent from 2005 to a peak of 436.4 million metric tons in 2007. As with production,

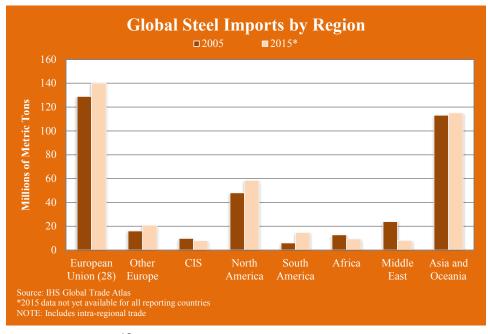
apparent steel use, and exports, imports also dropped in 2009, down 30.2 percent from 2007, due to the global financial crisis. As markets improved and trade recovered, steel imports quickly By 2012, imports had rose. reached 436 million metric tons, on par with 2007 levels, before declining in 2013 and again in 2015. Based on currently available data. imports decreased by 14.2 percent, or 62 million metric tons, between 2012 and 2015.



Trade — Imports by Region

Similar to exports, imports by region showed mixed trends when comparing volumes in 2005 to volumes in 2015. Five of the eight regions saw increases in their steel import volume. The European Union experienced the largest increase in steel imports between 2005 and 2015, (up 10.2 million metric tons), followed by North America (up 10.5 million metric tons), South America (up 8.8

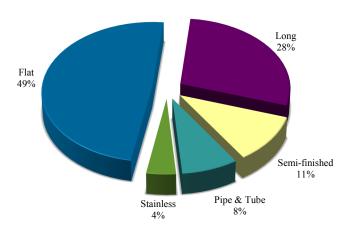
million metric tons), and Other Europe (up 4.8 million metric tons). The Middle East, Africa, and CIS all saw decreases in their import volumes, (down 15.9, 3.5, and 1.8 million metric tons, respectively). In 2015, the European Union accounted for 37.5 percent of global steel imports, followed by Asia and Oceania with 30.7 percent and North America with 15.6 percent.



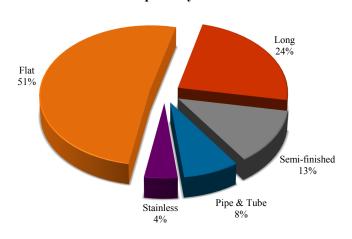
Trade by Product

At the product category level, trade in steel mill products was dominated by exports and imports of flat products in 2015, which accounted for roughly 50 percent of trade. Exports and imports of long products accounted for a quarter of the global steel trade. The remaining quarter was comprised of semi-finished products at just over 10 percent, pipe and tube products at 8 percent, and stainless products at 4 percent.

Global Steel Exports by Product - 2015



Global Steel Imports by Product - 2015



Source: IHS Global Trade Atlas

Source: IHS Global Trade Atlas

Trade by Country

In 2015, China was the top exporter of steel mill products, exporting 110 million metric tons, and the United States was the top importer, receiving 35.3 million metric tons. Countries from the European Union accounted for nine of the top 20 countries in both exports and imports, while countries from Asia and Oceania accounted for five of the top exporters, and seven of the top importers.

Top Steel Exporting Countries in 2015							Top Steel Importing Countries in 2015							
Rank	Country	ntry Metric Rank Country Metric Tons		Rank	Country	Metric Tons	Rank	Country	Metric Tons					
1	China	110.0	11	Brazil	13.7	1	United States	35.3	11	Mexico	9.9			
2	Japan	40.7	12	Taiwan	11.1	2	Germany	25.0	12	Canada	9.8			
3	South Korea	30.9	13	Netherlands	10.8	3	South Korea	21.5	13	Poland	9.2			
4	Russia	29.7	14	United States	9.5	4	Italy	19.7	14	Spain	8.9			
5	Germany	24.7	15	Spain	9.5	5	Turkey	15.6	15	Malaysia	7.7			
6	Ukraine	17.8	16	Austria	7.3	6	Thailand	14.6	16	Taiwan	7.5			
7	Italy	15.8	17	India	7.2	7	France	13.9	17	Netherlands	7.4			
8	Belgium	15.4	18	United Kingdom	7.1	8	India	13.3	18	United Kingdom	6.6			
9	Turkey	14.8	19	Canada	6.3	9	China	13.0	19	Czech Republic	6.1			
10	France	13.8	20	Poland	4.9	10	Belgium	12.1	20	Japan	5.8			

Global Steel Report: Glossary

Apparent Steel Use: Apparent steel use of finished steel products, or demand for steel, is calculated as finished steel shipments minus finished exports plus finished imports.

Flat Products: Produced by rolling semi-finished steel through varying sets of rolls. Includes sheets, strips, and plates. Used most often in the automotive, tubing, appliance, and machinery manufacturing sectors.

Long Products: Steel products that fall outside the flat products category. Includes bars, rails, rods, and beams. Used in many sectors but most commonly in construction.

Pipe and Tube Products: Either seamless or welded pipe and tube products. Used in many sectors but most commonly in construction and energy sectors.

Semi-finished Products: The initial, intermediate solid forms of molten steel, to be re-heated and further forged, rolled, shaped, or otherwise worked into finished steel products. Includes blooms, billets, slabs, ingots, and steel for castings.

Stainless Products: Steel products containing at minimum 10.5% chromium (Cr) offering better corrosion resistance than regular steel.

Steelmaking Capacity: The Organization for Economic Cooperation and Development defines steelmaking capacity as "the maximum production possible under normal working conditions."

Steel Mill Products: Carbon, alloy, or stainless steel produced by either a basic oxygen furnace or an electric arc furnace. Includes semi-finished steel products and finished steel products. For trade data purposes, steel mill products are defined at the Harmonized System (HS) 6-digit level as: 720610 through 721650, 721699 through 730110, 730210, 730240 through 730290, and 730410 through 730690. The following discontinued HS codes have been included for purposes of reporting historical data (prior to 2007): 722520, 722693, 722694, 722910, 730410, 730421, 730610, 730620, and 730660.

Region definitions

European Union (28): Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom

Other Europe: Albania, Bosnia & Herzegovina, Macedonia, Montenegro, Norway, Serbia, Switzerland, Turkey

Commonwealth of Independent States (CIS): Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Russia, Ukraine, Uzbekistan

North America: Canada, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Panama, Trinidad and Tobago, United States

South America: Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela

Africa: Algeria, Angola, Democratic Republic of the Congo, Egypt, Ghana, Kenya, Libya, Mauritania, Morocco, Nigeria, South Africa, Tunisia, Uganda, Zimbabwe

Middle East: Iran, Iraq, Israel, Jordan, Qatar, Oman, Saudi Arabia, Syria, United Arab Emirates

Asia and Oceania: Australia, Bangladesh, China, Hong Kong, India, Indonesia, Japan, Malaysia, Mongolia, Myanmar, New Zealand, North Korea, Pakistan, Philippines, Singapore, Sri Lanka, South Korea, Taiwan, Thailand, Vietnam

NOTE: Countries included per region vary by data source. The above definitions consolidate OECD and World Steel Association definitions of each region. Import and export data presented in this report include additional countries that report trade data to IHS Global Trade Atlas.

Global Steel Trade Monitor: The monitor provides global import and export trends for the top countries trading in steel products. The current reports expand upon the early release information already provided by the Steel Import Monitoring and Analysis (SIMA) system that collects and publishes data on U.S. imports of steel mill products. Complementing the SIMA data, these reports provide objective and current global steel industry information about the top countries that play an essential role in the global steel trade. Information in these reports includes global exports and import trends, production and consumption data and, where available, information regarding trade remedy actions taken on steel products. The reports will be updated quarterly.

Steel Import Monitoring and Analysis (SIMA) System: The Department of Commerce uses a steel import licensing program to collect and publish aggregate data on near real-time steel mill imports into the United States. SIMA incorporates information collected from steel license applications with publicly released data from the U.S. Census Bureau. By design, this information provides stakeholders with valuable information on the steel trade with the United States. For more information about SIMA, please go to http://enforcement.trade.gov/steel/license/.



T R A D E
ADMINISTRATION

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